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DETROIT EDISON COMPANY

By Robert R. Brown
Ann Arbor District Commercial Manager

Electric service is 63 years old in the city of Ann Arbor. The first company to offer electric service was the Ann Arbor VanDepoele Light and Power Company which took its name from that brilliant Belgian inventor. The VanDepoele Company began its operations in the summer of 1884 by lighting 36 stores and residences. Today within the city of Ann Arbor we are serving over 11,000 commercial and residence customers. The VanDepoele Company also secured a street lighting contract for 33 street lights, part of which were known as arc lamps, and a few as incandescent lamps (invented by Thomas Edison in the year 1879). Mr. VanDepoele had successfully lighted the Detroit Opera House with arc lights as early as March, 1880.

The name of the Ann Arbor VanDepoele Light and Power Company was changed, in the year 1886, to the Ann Arbor Thompson Houston Electric Company (according to O.W. Stephenson's "Ann Arbor the First Hundred Years"), the chief stockholders being J.L. Hudson of Detroit, W.F. Davidson of Port Huron, and A.L. Noble of Ann Arbor.

About this time Junius E. Beal erected an electric light plant and received the right to operate under the Edison franchise. In 1888 the Ann Arbor Thompson Houston Company purchased Mr. Beal's plant and franchise, making Mr. Beal manager. In September, 1895, the Common Council of the City of Ann Arbor contracted with the Michigan Electric Company of Detroit for 96 arc lights and as many 65 c.p. incandescent lamps as the Council should order. This contract was to run for a five-year period -- the lights to be used from dusk to 12:30 A.M., omitting moonlight nights. The Michigan Electric Company was also granted a franchise to erect in the streets, alleys, easements all necessary poles, wires, lamps, etc., to operate lights and motors for all commercial users of electricity.

At about this time the Ann Arbor Thompson Houston Electric Company was succeeded by the Ann Arbor Electric Company. Then, in the year 1900, the Washtenaw Electric Company was organized for the purpose of supplying electricity in the County of Washtenaw, more especially in Ann Arbor and Ypsilanti. Its headquarters at that time was at Geddes. In 1902, the Ann Arbor Electric Company was merged with the Washtenaw Electric Company, using the combined steam and hydro stations at Geddes and at 200 E. Washington St., Ann Arbor. Robert W. Hemple and his son, Robert, Jr., appear to have been the largest stockholders, and they managed the new company.

In 1905, the Detroit Edison Company acquired the controlling interest in the Washtenaw Light and Power Company, turning it over, from 1907-1915, to the Eastern Michigan Edison Company, this having been organized by the Detroit Edison Company to carry on its business in the districts outside of the City of Detroit. Since 1915, however, the Detroit Edison Company has operated in Ann Arbor under its own name. That same year they took over the hydro plant at Argo, which they operated until 1913 when a new plant was built.

The Superior Dam was built in 1843, but was purchased from the Ypsilanti Paper Company after the paper mill burned in 1907. Following this purchase, the old dam was repaired and a new power house was erected.

Until the year 1913, the hydro plants at Geddes, Argo, Superior, and Barton generated enough power to supply Ann Arbor and Ypsilanti, but about this time the Detroit Edison Company contracted to supply power to the Detroit United Railway. As this required more power than could be generated by the Huron River Hydraulic Plants, it was necessary to connect the hydro plants with the Detroit Edison System, and the hydro plants were used more as a means of regulating voltage than producing power. The hydro plants could, for a short period, produce about 8,000 kws., which is less than 2% of the capacity of the four steam plants along the Detroit River -- namely, Marysville, Connor's Creek, Delray, and Trenton Channel. The capacity of the four plants is 1,225,000 Kw.

The Detroit Edison Company is now serving more than half of the population of Michigan. Of course the fountain head of the Company is Detroit, but there are seven other divisions adjacent to Detroit. Ann Arbor is the central office of one of these seven suburban districts. Nine offices, including Ypsilanti, report to this central office in Ann Arbor. The district consists of most of Washtenaw, Livingston, and a part of Ingham Counties, serving some 40,000 customers, and I am proud to say that this district stands well up to the top in average kilowatt- hour use per customer. Also, I wish to call your attention to the fact that we have made service available to almost 100% of the farms in this district.

The one hundredth anniversary of the birth of Thomas A. Edison, which occurred in February, reminds us of the man who has contributed more to the advancement of electric service than any other one man. But I also wish to mention your own fellow citizen, Alex Dow, who was not only nationally known as a leader in the industry, but internationally consulted on many problems, not only of engineering but of finance.

Ann Arbor, Michigan
February 26, 1947

MICHIGAN CONSOLIDATED GAS COMPANY

By Charles R. Henderson
General Manager

The first Gas Company was organized in Ann Arbor under the name of the Ann Arbor Gas Light Company, in April, 1858. At the first meeting, held in the Court House, the stockholders elected Hiram Becker as the first president and Henry Wells as secretary. In addition, E.W. Morgan, Silas H. Douglas, and Charles Tripp were made directors of the company. Notice of this first meeting was published in the Argus, dated March 19, 1858, by Elihu B. Pond, publisher. Upon the death of Mr. Becker, Charles Tripp was made president the following October. The articles of association stated that the company was organized for the purpose of manufacturing and selling gas in the City of Ann Arbor for use in lighting the town. The company's capital stock at the time amounted to $23,000, consisting of 460 shares at $50 each. There were 82 share holders, ranging from 20 shares down to one share, all of them people prominent in the community.

On May 11, 1858, a committee was appointed by the board to negotiate a site for the first gas plant and that committee purchased a site from William M. McIntyre for the sum of $600. That site was located in Block 8 of the Ormsby & Page Addition, bounded by Beakes Street, Summit, and Depot Streets, just before you cross over the Michigan Central tracks to the north side. This property is still owned by the company and at the present time provides a home for the plant superintendent.

The company started the construction of the plant and coal sheds and also the construction of gas mains in the streets. The first streets to receive the service were Detroit, Division, Huron, Packard Streets, and Fourth Avenue. The new plant began manufacturing gas in September of 1858.

At a meeting of the stockholders on April 8, 1859, it was reported that the plant has a capacity for "manufacturing and distributing gas for a population of 3,000 inhabitants and that there had been constructed a network of five miles of gas mains traversing the streets on such a system as to enable the company with short extensions to reach nearly every portion of the city which is likely to be built upon." The directors also reported that "this plant is as near perfection as the genius of the age can reasonably approach, and that the cost of erection had been materially less than inferior and temporary plants have been put up for in other places." The directors commented upon the "cheerfulness and readiness with which the 180 consumers have paid their bills, the company having lost less than $3.00 of the $2400 worth of gas sold."

Gas was first sold at a price of $4.00 per M cubic feet in 1858, with subsequent reductions as time went on.

The company made a proposition to the city in 1859 to light the city streets with 25 street lamps and to clean and extinguish them. These lamps were to be lighted at sunset and burn until 1:00 a.m. for $24 per lamp monthly, payable quarterly, with the stipulation that the lights would always be lighted except when there was a Moon. Gas lights for streets were still in use in this city until 1905.

In 1888 the company's first franchise expired and it was given a new franchise for thirty years. It was reorganized under the name of the Ann Arbor Gas Company instead of the Gas Light Company, the change due to the increasing use of gas for other purposes than street lighting.

Demand for gas continued to grow and the original plant capacity became too small. In 1900 a new plant was built on a tract of land to the north across the N.Y.C. railway tracks, which is today's location of the gas plant. At the same time a 200,000 ft. gas storage was also constructed. The old plant was dismantled and the new plant started with a daily capacity of 100,000 feet of gas per day, this capacity being increased until in 1939 it reached two and one half million feet of manufactured gas, with a heating value of 530 B.T.U.'s per cubic foot. Another gas holder was constructed in 1909 having 500,000 ft. storage capacity, and third holder in 1929 with 1,500,000 ft. capacity. When the new plant was started the company sold approximately 70,000,000 feet of gas annually, which grew to 500,000,000 feet with the advent of natural gas in Ann Arbor in 1939.

After the dismantling of the old gas plant in 1900, a barn was built on the site to house the horses which were used for delivery of gas-coke. Also in that same year a new office building was authorized on a site which had been purchased by the company. That site is the present location of the company's office, except that the space was doubled a few years later by acquiring an adjoining building.

In 1913, the company again went through a reorganization process and the name was changed to the Washtenaw Gas Company, as a result of demand for gas service beyond the city limits. Gas mains were extended to the villages of Dexter and Chelsea by means of a high pressure line, the first of its kind to furnish gas to smaller communities. As a result, many of the other gas companies in the state considered following suit and all began gradual extensions to small communities. Today practically all communities of the size of Dexter and Chelsea in the state have gas service. At the time of the company's reorganization in 1913, it had assets of approximately one million dollars, which represents a very substantial growth through the first 55 years of its life, and these assets today have increased to over $2,000,000 in the Company's 89th year of continuous operation.

From the beginning, gas was manufactured by firing coal into gas retorts. The operation of charging these retorts was done by hand. The type of retorts used was, of course, improved through the years, but the general process remained the same until 1915, when gas was first manufactured in small coke ovens. Again the company was a pioneer in the introduction of these ovens for small gas plants, and other gas plants about the state followed suit. The coke oven process was continued until 1939, when they were abandoned in favor of natural gas.

During the years of coal gas production, coke was a by-product which was burned up in the plant in the early years, but later sold for domestic consumption. The annual coke production grew from 1000 tons up to 17,000 tons in 1939, all of it sold locally for domestic heating.

In 1927, the stockholders decided to sell out their interest in the Washtenaw Gas Company, and all outstanding stock became the property of the American Light and Traction Company, with offices in Chicago, and is still held by the same organization. The 1888 franchise expired in 1918, and a new one was approved for another 20 years. Soon after, it developed that the company could not pay operating expenses under the rates proposed in the franchise. So a commission, consisting of Victor H. Lane, Henry E. Riggs, and Ray K. Holland, was appointed by the Ann Arbor Council to devise new rates for gas service.

The commission studied very carefully what was then known as the "London Sliding Scale Plan," and adapted some of the principles to the local situation. It was an interesting plan, one of the first of its type used in this country, and later adopted by other cities with some modifications. In substance, the plan provided a fixed rate of return to the company and any money earned over the allowable amount was divided between the company and the consumer, depending upon the price charged for gas. The consumer's share was returned to him annually in

the form of a dividend. The plan worked well for a period of years in the interests of the consumer and the company, but with the depression years of 1929 through 1933 the plan showed many weaknesses. Finally, when the rate plan and ordinance of 1918 ran out in 1938, the common council of Ann Arbor decided to hand the matter of gas rates over to the Michigan Public Service Commission, whose business it was to look after such matters, and the company has operated under its authority since that date.

In 1938, it was decided to consolidate all the gas properties in Michigan owned by the American Light and Traction Company, such as Detroit, Grand Rapids, Muskegon, and Ann Arbor, into one large operating company in order to make it a much stronger organization. At this time the name of the company became the Michigan Consolidated Gas Company, with main offices in Detroit.

A few contrasting figures: When gas was first introduced into the city in 1858, the rates charged were $4.00 per M; compared with present day natural gas rates, it was eight times as expensive back in 1858 as it is today. The company started with five miles of gas main in 1858; at the end of 1946 188 miles of gas main were in use. In 1859, the company served 180 customers; at the end of 1946, we were serving 11,096 customers, located in Ann Arbor, Dexter, and Chelsea, and all outlying communities of the County.

Some of the names connected with the early history of the company were: Silas Douglas, Hiram Becker, Phillip Bach, Eberbach Company, William Wagner, John Maynard, H.J. Beakes, A. Felch, D. McIntyre, John Gott, James Clements, F. Muehlig, H. Dean, E.D. Kinne, David Rinsey, Moses Seabolt, S.T. Douglas, and Henry W. Douglas. You will note that most of these names have left their mark on the city in various ways. During the 89 years of the company's existence, its operation has been under the direction of three men, namely Silas H. Douglas, Superintendent from 1858 to 1891; Henry W. Douglas, Manager in 1891, later President and General Manager until his death in August, 1924; and your speaker, Charles R. Henderson, Manager in 1924, later President and General Manager of the Washtenaw Gas Company, and operating head of the company here in Ann Arbor up to the present time.

Ann Arbor, Michigan
February 26, 1947

THE TELEPHONE IN WASHTENAW COUNTY

By F.L. Curtis
Director of Public Relations,
Michigan Bell Telephone Company

We too often neglect our past because we find the present too absorbing. That is particularly true in a business like ours which must keep at least abreast, if not ahead of a busy nation's expanding telephone needs. But sometimes an important milestone is passed which makes us pause for a backward look. Such a milestone we celebrate this year - the hundredth anniversary of the birth of Alexander Graham Bell.

We will all agree, I think, that a look back is one way of determining how far we have come. And in the telephone industry it has been a long way. There have been telephones in Michigan almost as long as there have been telephones anywhere in the world, and Washtenaw County can boast of some of the first in the state.

Speech was first transmitted electrically by Alexander Graham Bell in June, 1876, and the first telephone in Michigan was in service at Detroit one year later. The telephone was introduced to Washtenaw County in 1879, when Clark Cornwell, then manager of the Cornwell Paper Company, brought three of them to Ypsilanti and placed them in service connecting the Cornwell office in town with its paper mills at Lowell and Geddes. W.D. Green, then State Agent for the Telephone and Telegraph Construction Company of Detroit, who resided in Ypsilanti, made the installation. Mr. Cornwell, a man of excellent business acumen could foresee that "Bell's toy," as the telephone was then called, had great social and industrial potentialities, and he was instrumental in getting the telephone started in both Ann Arbor and Ypsilanti.

Those first three curious-looking instruments also were used for demonstration purposes - Ypsilanti and Ann Arbor folks were invited to come in and use them. All were amazed; most were skeptical, and some were just plain unbelievers. One prominent business man shook his head and said, "You're crazy if you think you can put over a child's toy on us businessmen. This telephone is just a play-thing, and can never be of any practical use."

One of the Ann Arbor businessmen who had inspected Clark Cornwell's telephones was Thomas J. Keech, prominent in the lumber business, and also a member of the Ann Arbor Fire Commission. Mr. Keech had a small fire squad of his own to protect his business interests, and thus was interested in any new methods to speed the alarm of fire. The new invention looked good to him, so he arranged with Mr. Green for a private line at Ann Arbor, between his office at the Ferdon Lumber Company and that of the Swathel, Kyer and Peterson Company. A third instrument was installed at the grist mill of the latter company. That was the second telephone line in Washtenaw County.

Five others were installed at Ann Arbor soon after, more through curiosity to see how they would work than through anticipated service results. However, these few telephones proved serviceable enough to become an impetus for further development. Without a central switching point, however, the first telephones were all on private lines which could not be interconnected with one another. More and more people were becoming interested in obtaining telephone service, with the result that a movement was started on October 6, 1880, to initiate local exchange service.

A meeting was held on that date in the law office of Zina P. King to consider establishing a telephone exchange in Ann Arbor. While not largely attended, it was enthusiastic. Mr. W.A. Jackson, superintendent of the Telephone and Telegraph Construction Company of Detroit, was present in response to an invitation, and advised those present that an exchange could be established if 25 subscribers could be secured.

Immediately following this meeting, concerted action was started by Tom Keech and Clark Cornwell to obtain the 25 necessary subscribers. Fortunately, there were really only 18 new ones to be procured, because seven telephones were already in service in Ann Arbor, and their owners were all in favor of an exchange. Even at that, it was hard work to convince 18 additional people that they should subscribe to this new-fangled service; skepticism played its full share, and men of less determination than these two would have had ample reason for giving up the job. But Keech and Cornwell kept at it and the canvass went on. In fact, they determined that Ypsilanti and Dexter should also have telephone service, and accordingly extended their canvass to include these towns as well.

A classic example of the popular skepticism regarding the first telephones was encountered while seeking a centralized location for the first Ann Arbor switchboard. The third floor of the old Reinhardt Show Store building at 42 South Main Street was ideally situated, but the owner of the building was so much in doubt as to the ultimate success of the venture that he refused to rent space in his building for the central office until his attorney had assured him that it would not jeopardize the insurance on his property. At any rate, a lot of hard work on the part of Messrs. Cornwell and Keech finally paid off; 27 days after the aforementioned meeting, the required 25 subscribers had been obtained, and construction began on the local exchange system in Ann Arbor.

The first telephone exchange in Washtenaw County was cut into service at Ann Arbor, 66 years ago, on New Year's Day, 1881. The Ypsilanti exchange followed, going into service in April, 1881.

Early telephone operation was crude compared to modern service, although it was the best available at that time. Wires were strung from housetops and trees, and transmission over the single strand iron wires was so difficult that it was necessary to shout into the instrument in order to be heard at the other end of the line, and the lines were noisy most of the time. There were no telephone numbers, either, at first. Calls were placed by names, and the operator had to remember the names of all the subscribers and the points at which their lines terminated on the switchboard. When a subscriber rang the operator, she would answer "Hello," and the calling party would ask for the person to whom he wished to talk.

Rates were established at $48 a year for a business telephone and $36 for residential service. Those rates were considered very reasonable, in consideration of the value of the service, even though a person could call only very few others. Free service between Ann Arbor and Ypsilanti was provided until 1911.

Because of their experience in getting telephone service started in the two towns, Mr. Keech became manager at Ann Arbor, and Mr. Cornwell at Ypsilanti. The first two rural lines were installed for the residences of Edward Boyden, in Webster Township, and Gustave Peters, in Scio Township. In 1884, Ann Arbor's first electric lighting and power plant was installed, and new problems arose. Practically all of the local telephones were rendered useless because of heavy induction interference. That was a serious problem in those days, and one for the solution of which there was little precedent. However, the local telephone people soon found that a return ground wire system eliminated the difficulty.

The year 1883 first saw Washtenaw County linked with outside points by telephone. That year, lines were built to Detroit, Lansing, Battle Creek, Kalamazoo, and other points. The telephone then seemed to be well established, and operating smoothly, all the flaws eliminated. However, increase in demand exceeded the speed in development of better telephone equipment. One notable improvement at that time was the replacement of the one-wire, grounded system with a magneto system.

With the expiration of Bell's first patents, other companies sprang up everywhere and organized competing exchanges. Washtenaw County went through the experience too. The first of these competing companies was in Ypsilanti, backed by a local organization. But it lacked adequate facilities and expert technicians, therefore the service was poor and it lasted only two years. It was taken over by the New State Telephone Company, which had headquarters in Detroit. The New State Company also was granted a franchise by the City of Ann Arbor the same year, and went into competition with the two original companies. Its success was indifferent and its life short, despite its lower charges for service. It was taken over after five years by the Michigan State Telephone Company (the Bell organization),

and its exchanges closed. Former New State subscribers were served from the Michigan State Telephone Company's exchange by means of cables run from the abandoned exchange to the other company's switchboards.

The last competitive telephone company in Washtenaw County was the Washtenaw Home Telephone Company, organized by two of Ann Arbor's leading business men, Walter C. Mack and Charles W. Wagoner. Exchanges were established by this company in Ann Arbor, Ypsilanti, and Dexter. The ordinance covering the Ann Arbor franchise contained the following interesting clause: "Neither this franchise, nor any of the rights and privileges thereunder shall be sold, assigned or leased to any telephone company...so as in any manner to prevent legitimate competition." That clause overlooked the costly duplication of service necessary in a dual system; a subscriber had to subscribe to two telephone systems, paying a full price for each, or his telephone was of little value to him. The same franchise further read: "After the expiration of ten years...the city council of Ann Arbor shall have the right and privilege of purchasing the said telephone system." At any rate, the Washtenaw Home Telephone Company had affiliated itself with the Home Telephone Company at Detroit, to obtain long distance facilities, and when the latter company was taken over by the Michigan State Telephone Company (the present Michigan Bell Telephone Company) in 1913, the Washtenaw Company was also absorbed. Thus sixteen years of dual telephone service, with all its confusion and extra expense to the users, came to an end in Washtenaw County.

An important factor in the growth of telephone service at Ann Arnor has been the University of Michigan. As the University grew, its telephone needs increased, not only for connections with the outside but for internal management. The first private branch exchange at the University was placed in operation in 1904.

In 1925, new buildings were constructed expressly to meet the telephone needs of the cities of Ann Arbor and Ypsilanti, and all new equipment was installed in both buildings. It was further decided to install machine-switching, or automatic equipment in the new Ann Arbor central office building. A decade later, Dexter followed suit. A dial central office, housed in a new $45,000 building, was cut into service there in 1938.

Growth during the war years was, of course, sharply curtailed, owing to the fact that the Bell System's manufacture of telephone facilities had to be diverted to military needs, virtually cutting off supplies of civilian telephone equipment. This resulted in backlogs of held orders, which have kept the telephone company hopping since V-J Day; as old orders are completed, new orders come in, which makes us have to "run to stay in the same place." 1946 was a year of great activity: in that single year in Ann Arbor, 42,000 new service

connections were completed, and that is really something, because that is a greater number of telephones than there were in the entire exchange in 1915! Today there are over 33,000 telephones in Washtenaw County, nearly 20,000 in Ann Arbor, and over 8,800 in Ypsilanti. The telephone industry is on the threshold of a new era of growth. Advantage is being taken of every technological development which will provide better, cheaper, and more extensive service. An example of this is the new mobile radiotelephone service, introduced at Detroit last fall, and sure to be available in Washtanaw County within three or four months.

Ann Arbor, Michigan
February 26, 1947

HISTORY OF MUNICIPAL WATER SUPPLY FOR THE CITY OF ANN ARBOR, MICHIGAN

By Harrison H. Caswell
Manager, Ann Arbor City Water Department

Municipal water supply history in Ann Arbor began in 1885, when, on March 23, the Common Council authorized a contract with a private company (Messrs. Goodhue and Bairney, of Springfield, Massachusetts) to establish a so-called "Complete Municipal Water Works System." The proposition was put before the people for a vote and approved 8 to 1. A 30 year franchise was issued, the private corporation to be known as the "Ann Arbor Water Company."

At that time the City of Ann Arbor had a population of about 8,800, and the University had student enrollment of about 1500. The entire water supply was obtained from private wells and springs, and the presence of ground water within this area was so limited that in many parts of the city it was difficult even to locate such a private supply, and neighborhood groups often found it necessary to obtain water for cooking and drinking purposes from some single source located in the vicinity of their homes.

Every home, of course, had its cistern or its rain barrel from which water for laundry and bath was obtained. Large cisterns were also located throughout the business district where roof water was collected for fire protection purposes, and in the outlying districts they had to depend almost entirely on the old bucket brigade.

Plans for the original plant were made by Professor Charles E. Greene of the University of Michigan, who also supervised the construction work. The plans called for the establishment of a complete water supply system, including adequate pumping facilities; an open reservoir of 2 million gallons capacity, with facilities for draining and cleaning (which were not provided); the laying of 14 miles of cast-iron mains, and the installation of 50 gate valves and 105 fire hydrants. The Company agreed to furnish "at all times a sufficient supply of good water suitable for domestic purposes and this at a

reasonable rate." For the general service provided the community, the city agreed to pay $4,000 per year, plus $40 per year for each additional fire hydrant. The system was to be completed in January, 1886, at a total cost of $200,000.

The first pumping plant was located on the site of what is now known as pumping station No. 1, on the Huron River near Barton Dam. Though the original steam pumping equipment has long since been abandoned and replaced by electrically operated equipment, most of the original buildings are still in daily use.

The original reservoir, an open earth embankment structure, was located on Chubb Road, now Sunset Road, on the location of the present reservoir, and was in use up to the time it was replaced in 1931 by the present vastly improved concrete box-type reservoir.

It is interesting to note the test specifications upon which the adequacy of the system for fire protection was determined. "The works shall be capable of throwing by reservoir pressure six streams eighty feet high at the Court House at one time." There does not appear to be any authentic record of the test having been made and approved.

The original plant had a capacity of less than one million gallons per day, and it was soon learned by the company that the original springs and wells from which the supply was taken were inadequate to meet the demands. Water was taken from a creek on the Allen farm, on the north side of the river, and conveyed across the river to the suction basin.

It was from this borrowed source of supply that the first complaint was registered, and this by the Health Department, when it was reported that a horse had been buried in one of the springs, and that cattle were making a drinking place in the creek at the point where the water entered the pipes. It also became necessary to shut off one of the creek's tributaries through which drainage from a barnyard found its way into the water supply.

A thorough investigation was made of these complaints, and the Board of Health was somewhat appeased by the efforts of the Water Company to clear up the situation as far as its interests were concerned. However, as time went on other problems developed that brought the Water Company into bad graces again.

A controversy arose over the adequacy of the fire protection being provided and the rentals paid for this service. It appeared that many hydrants were not readily usable in the winter because of ice around the outlets formed from water draining the holes in which the hydrants were set. Other hydrants could not be easily located because of the snow piled around them in cleaning off the sidewalks. It was reported that the pumping equipment was in a dangerous state of repair and that at all times the company maintained an insufficient reserve supply of steam coal. The company was severely criticized for not drilling more wells. One prominent critic advocated wells 30 feet in diameter and 70 feet deep if necessary to guarantee a sufficient quantity of water.

The legality of the contract was being questioned, and as early as 1893 a committee appointed to investigate recommended that the city make an effort to purchase the property from the Water Company, or if this failed, to construct a system of its own. Professor Charles E. Green, the engineer on the original plant, appeared before the Common Council in August, 1893, as an advocate of the use of the Huron River as a source of supply to solve the problem rapidly developing.

The promises of the Water Company to correct conditions turned out to be but idle gestures. Later developments indicated that the company was stalling for time because of extreme financial difficulties and in September, 1893, it went into receivership and remained in this status until reorganization in 1898.

After incessant hammering, it appeared that the Water Company did make an effort to relieve the situation, for in 1896-7 a new pumping station was located on West Washington Street on the site of our present storehouse. This was a steam plant with a daily capacity of 1 1/2 million gallons daily, and the water was taken from a series of artesian wells drilled on the site, and from several collecting galleries located in the valley between Washington and Liberty Streets.

During the period from 1900 to 1910, as much water as possible was being taken from the two existing artesian sources, the balance being taken from the Huron River. The amount being taken from the river increased yearly, and as there was no storage pond (Barton Dam had not been built), there were a number of periods through the year when the water carried considerable sediment. In 1910, a small filter bed was built near the Station No. 1 plant, but this proved too small, and with no means of backwashing for cleaning was very impracticable and short-lived.

In the summer of 1912, construction began on the Edison Company's Barton Dam plant. An intake pipe extending about 200 feet upstream from the dam was installed, with the intake about 25 feet below the surface. This furnished the major portion of the supply with the only treatment being chlorination by lime hypo-chlorite.

An attempt was made to purify the water by ozonation, and an ozone plant was constructed in 1912. This was one of the very few plants of this kind installed in the United States. This ozone plant only operated for a short time and was completely abandoned in 1915 when liquid chlorine came into use and a chlorinating machine was installed.

The presence of an artesian water supply on the Steere Farm, about 3 miles south of the city, came under discussion in 1912 and an option was taken on this land and several test wells were drilled. With this new-found source of supply, agitation was started in earnest for municipal ownership at the expiration of the existing franchise of the Ann Arbor Water Company in 1915.

After much discussion of purchase terms, an agreement was finally reached in October, 1913, for the purchase of the Steere Farm for $20,000, and the properties of the Ann Arbor Water Company for $450,000.

The present Water Department was created by ordinance on December 1, 1913, and this ordinance has stood the test of time with very few changes. The Department is operated and controlled by a Board of water Commissioners consisting of 3 members elected by the City Council for 6 year terms. The affairs of the Department are administered by the Manager, who is hired by the Board.

At the time of transfer of ownership the water system had 40.4 miles of water main; all water sold was on a flat rate basis with the exception of a few meters for the larger demands in factories and for the University. For the first few years the Board of Water Commissioners struggled along with the plant under existing rates and with the original sources of supply. The demand for water had long since outgrown the available artesian supply and more and more the river was being called upon to meet the demand. A pumping station at the Steere Farm was put into operation in July, 1919. This station supplied 3.5 million gallons daily of artesian water, and as the Department continued to operate on a flat-rate basis, even this addition was not sufficient to meet the peak demands, and it became evident that it would be expedient to install meters on all services. These were installed in 1920, as rapidly as the changeover could be made, making Ann Arbor one of the first 100% metered cities.

Soon after pumping was started at the Steere Farm source, land owners in the immediate vicinity started action to enjoin the city from continuing to pump, because of alleged damage to land and crops. A settlement was made with the several claimants for $81,000. At a later date, when another group made an effort to collect damages on the same grounds, the city stood suit and the courts, circuit and supreme, returned a verdict in favor of the city.

The supply at the Steere Farm source was very hard and contained objectionable iron and sulphur, which was the cause of a great deal of dissatisfaction with the new supply. An extended ground water survey located an additional supply of artesian water, and in 1928 two more wells were constructed, one on Montgomery Avenue in the western part of the city, and one on the site of Pumping Station No. 1.

In 1931 a bond issue of $325,000 provided funds for booster mains to the areas of low pressure to the west and east of the city; and the construction of the new fully enclosed concrete box-type reservoir of 6 million gallons capacity to replace the old original open earth embankment reservoir, more familiarly known as "the old swimming hole."

No community's water problem can approach solution until it has been provided with a soft water supply. The city of Ann Arbor has such a supply through the construction of the water softening plant on Sunset Road, in 1938. This plan was constructed on a unique plan of financing. By raising the water rates 50% for one year (1936), the Department was provided with sufficient funds to construct the plant without a bond issue. The plant was entirely paid for without one penny of indebtedness when completed.

The City of Ann Arbor has now had a municipal water supply for 61 years, and 34 years of municipal ownership. The gross assets of the Department total approximately three million dollars. There are 115 miles of water main, 8,700 meters, average daily pumping 6 million gallons.

Water Commissioners:

*Joseph Wellman	Dec. 13, 1913 - Jan. 5, 1914**
*John Lindenschmidt	Dec. 13, 1913 - Jan. 20, 1932**
***Wirt Cornwell	Dec. 13, 1913 - Dec. 7, 1924
*George J. Mann	Jan. 19, 1914 - May 16, 1927
Robert Norris	Dec. 15, 1924 - Jan. 20, 1932**
William H.L. Rohde	May 16, 1927 - June 19, 1933
Russell A. Dodge	Jan. 20, 1932 - term expires May, 1949
***Russell T. Dobson	Jan. 20, 1932 - June 19, 1938
William S. Housel	June 19, 1933 - Sept. 8, 1942**
William E. Watrous	Sept. 6, 1938 - term expires May, 1947
William E. Bandemer	Sept. 8, 1942 - term expires May, 1951

Secretary of Board and Manager of Department:

*Dr. A.K. Hale (Temp.)	Feb. 2, 1914 - Mar. 2, 1914
***George S. Vandawarker	Mar. 2, 1914 - Sept. 3, 1930
Harrison H. Caswell	Nov. 11, 1930 -

* Deceased
** Resigned
*** Died in office

Ann Arbor, Michigan
February 26, 1947